

## DOCUMENT RESUME

ED 350 556

CG 024 612

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TITLE The Relationship between Internal Locus of Control  
and Rehabilitation Prognosis.  
PUB DATE 91  
NOTE 21p.  
PUB TYPE Information Analyses (070)  
  
EDRS PRICE MF01/PC01 Plus Postage.  
DESCRIPTORS \*Locus of Control; Quality of Life; \*Rehabilitation;  
Research

## ABSTRACT

Studies involving the importance of internal locus of control on the rehabilitation process of any illness or disability tend to have numerous methodological problems. The subject groups selected and the indexes of outcome, as well as the manipulation of treatment, structures cause limited generalizability. Different studies contradict each other probably too frequently for strictly scientific purposes. This becomes obvious when looking at the various studies involving weight reduction and locus of control. However, in light of the great body of knowledge indicating a more than coincidental relationship between locus of control and outcome, it would be unwise to disregard it. Questionnaires exist that measure a person's internal locus of control, however, that extra inner essence of a person defies scientific exploration and measurement. The literature attests to the more than coincidental power that internally oriented people possess over their disabilities. And it seems that it is this power that can make the difference in a person's prognosis and quality of life. (ABL)

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# Locus of Control and Rehabilitation

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## The Relationship Between Internal Locus of Control and Rehabilitation Prognosis

by

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Fall 1991

CG024612

Running head: THE RELATIONSHIP BETWEEN INTERNAL LOCUS  
OF CONTROL AND REHABIILTATION PROGNOSIS.

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## Locus of Control and Rehabilitation

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### Abstract

It was not possible to find articles addressing the relationship between locus of control and rehabilitation prognosis in general, however, there were a number of articles dealing with locus of control and rehabilitation from specific conditions. This paper contains information about this relationship gleaned from articles dealing with children and adults who have physical and mental disabilities that are chronic and acute in nature.

By looking at people with a variety of conditions, the effects of an internal locus of control orientation on any rehabilitation process could be more generalized. Although many of the studies with these various groups cannot boast statistical significance, the prediction that having an internal locus of control will enhance a person's rehabilitation and health outcome has had consistent substantiation.

The Relationship Between Internal Locus  
of Control and Rehabilitation Prognosis

People with internal control perceive events as being contingent upon their own behavior or personal characteristics, and thus believe in their own ability to change the environment around them. Externally controlled individuals view reinforcement as out of their scope of control (Eggland, 1973).

Rotter (1966) determined that consistent individual differences exist in regards to peoples' beliefs in the way their behavior will affect the control of life-events. These beliefs were designated "locus of control." This construct and the theoretical foundation underlying its development evolved from Rotter's earlier work (1954) on social learning theory (Foon, 1987).

It has been widely accepted that the responses of persons with an internal locus of control differ from those of persons with an external locus of control. These differences involve the degree of involvement in cognitive activity and the extent to which the person

allows others to influence him/her (Lowery & DuCette, 1976).

An internally oriented person will seek out information regarding the disease and be much more cognitively involved. An externally oriented person will be much more passive and compliant. This is basically how one could expect them to approach their environment and their disease (Lowery & DuCette, 1976).

The results of various internal-external assessment instruments (Rotter I-E Scale and I-E Scales superficially measuring health dimensions) contend that beliefs regarding internal versus external control are significantly and even dramatically related to health-related behaviors. Persons with an internal locus of control are more likely to take steps to change negative life situations. These people would tend to be more sensitive to health messages and would work at improving their physical functioning. In this regard, an internal locus of control can be seen as a preventive strategy. Internally oriented persons appear to be more interested in maintaining their

physical health and guarding against accidents (Strickland, 1978).

When asked about how they would react to a disability, internally oriented people view it as less problematic than do externally oriented people (Strickland, 1978). The internally oriented person who has a chronic disease will deal with illness episodes in a more positive manner than will an externally oriented person (Belgrave & Washington, 1986).

Fish and Karabenick (1971) report that, in a test given to 285 males registered for introductory psychology classes, there was a Pearson  $r$  correlation for self-esteem (feelings of inadequacy scale) and I-E (Internal-External control scale) of  $-.28$  ( $p < .001$ ), thus suggesting that people with higher self-esteem are more internally oriented. The contention has been made, although not proven, that people with high self-esteem might have a greater potential for self-reinforcement, thus increasing their ability to enhance their prognosis.

The following information presents a selection of studies and articles dealing with differed groups of people with various disabilities. The information demonstrates how their locus of control orientations affect their rehabilitation outcomes.

#### Individual Studies

The measurement of locus of control is usually done with questionnaires in which situations are described and the respondents are asked to make selections which attribute the cause of each situation to the person's actions or to other forces. Three such questionnaires are: the Intellectual Achievement Responsibility Questionnaire (IAR), the Multidimensional Health Locus of Control Scales (MHLC), and the Perceived Competence Scale (PCS).

The results of a study of 50 children with encopresis at the Children's Hospital in Boston suggested a definite connection between internal locus of control and treatment response (Rappaport, Laudman, Fenton, & Levine, 1986). Locus of control was considered the most revealing variable relating to

prognosis. Locus of control is not an absolute indicator of treatment outcome, however, in this study it was a better predictor than any other identified variable.

During the initial evaluation of a child with encopresis, his/her locus of control, as measured by the IAR Questionnaire, has great significance. It is here that a child at high risk for resistance to treatment (externally oriented) can be identified, and steps can be taken to internalize the child's locus (Rappaport et al., 1986).

Regarding diabetes, it is essential that the individual both understand diabetes and follow the treatment regimen. Basically, the control of therapy is in the patient's hands. It seems logical, then, that there will be differences in the manners in which internal and external diabetics will approach this information and assume this control (Lowery & DuCette, 1976).

Lowery and DuCette (1976) report general support for the hypothesis that diabetic patients who are



internally oriented are more active information seekers. Interestingly, this decreased over time, with the externally oriented diabetic patient ending up possessing an equal amount of information. Of greater interest were the results showing that, over a period of time, externally oriented diabetic patients show significant decreases in the number of problems associated with their disease, while internally oriented diabetic patients show no decrease. This would seem contradictory to the basic premises here, until the nature of the disease and the internally oriented person are explored.

Upon being told of the diagnosis of diabetes, the internally oriented person seeks out information that will allow him or her to control the disease. Being in a position of control is where this person is most comfortable. Unfortunately, diabetes is not easily controlled and there is no correlation between performance of a prescribed treatment course and control of the disease (Lowery & DuCette, 1976). The internally oriented person is therefore in a very

uncomfortable and unaccustomed position. This would seem to re-affirm the hypothesis that our inner self, our perceptions, have a great impact on rehabilitation processes. The internally oriented diabetic patient, faced with his or her inability to control the disease, is left feeling defeated, with a resulting decline in health.

A study of locus of control in children without handicaps and children with Cerebral Palsy is presented by Eggland (1973) who hypothesized and substantiated that children with Cerebral Palsy are more externally controlled than children without Cerebral Palsy. The children with Cerebral Palsy do become more internally controlled with increasing age. According to Eggland (1973), externally controlled persons view physical disability as a greater threat than do internally controlled persons. This would imply increased difficulties with rehabilitation. Locus of control would therefore seem to be a critical element in rehabilitation.

The results of Eggland's study (1973), showing more external orientation in children with handicaps, has important implications for rehabilitation efforts. Attempts at changing their expectancy levels toward a more internal orientation would increase their ability to accept their disability and to succeed in rehabilitative learning. The idea of modifying an individual's locus of control opens the door to increased possibilities for enhancement of a positive rehabilitation process.

A study of rehabilitation-center clients demonstrated that those clients with an internal orientation were considered by their supervisors to have superior work-related habits (Foon, 1987). Having an internal orientation is considered to be the most significant predictor of success in alcohol treatment programs (Foon, 1987).

A study (Burgess, Morris, & Pettingale, 1988) involving 178 patients with newly diagnosed cancer, explored the cognitive responses to this diagnosis in relation to anxiety, depression, and health locus of

control. An analysis of the cognitive responses and other psychological variables, showed four broad coping styles: (a) positive/confronting, (b) fatalistic, (c) hopeless-helpless, and (d) denial/avoidance. "Lower psychological morbidity was associated with a positive/confronting response to diagnosis and with high internal locus of control" (Burgess et al., 1988, p. 270). There also were implications that an active coping style is conducive to longer survival.

Deegan (1988) makes the point that people with psychiatric disabilities share the same needs and aspirations as people with any other disability. She differentiates between recovery and rehabilitation. Rehabilitation refers to the services and technologies made available to people with disabilities that enable them to adapt to their changed world. Recovery is the lived experience of persons as they accept and strive to compensate for their disabilities.

Deegan's (1988) personal account is that acts of acceptance, action, courage, and hope are the difference between living a truly disabled life or

living life with a disability. She does not label these as qualities of an internally oriented person, however, it seems clear that it is these scientifically unmeasurable qualities that capture the spirit of recovery.

Foon (1987) suggests that locus of control is derived in great part from one's history of effectiveness or lack of effectiveness that is associated with parenting background and social groupings. She believes that, in psychotherapy, clients who begin with the belief that they contributed to and are responsible for their problems are likely to remain in therapy longer and have more success than clients who do not accept responsibility. Foon believes that the type of therapy chosen for a client should fit the client's orientation.

A study (Dirksen, 1989) evaluating the well-being of 31 survivors of malignant melanoma reported that locus of control, social support, and self-esteem had significant effects on a person's well-being. An internal locus of control was shown to have contributed

to the person's self-esteem and well-being. Dirksen (1989) suggests that several techniques can enhance a person's sense of control: positive imagery, biofeedback, meditation, and self-help groups.

The results of a study of life satisfaction, illness behavior, and rehabilitation outcome of cardiac patients, were published by Myrtek (1987). Locus of control was not mentioned per se. What is interesting, however, is that, at the time of follow-up, 90% of the patients with high life satisfaction, as measured by the Life Satisfaction Questionnaire, had returned to work, in comparison to only 66% of those with low satisfaction who had returned to work. The implication here is that work resumption is influenced by nonmedical factors. That point was stressed by another researcher who was looking into the subject of stroke rehabilitation outcome:

The determinants of outcome depend to a great extent on factors other than the nature and extent of the impairment. It seems that the patient's subjective perception of himself as either well or

ill may be a major determinant of subsequent behavior in terms of functional dependence (disability). (Smith, 1990, p. II-58)

A study testing the impact of labeling on the functioning of patients who were diagnosed with psychoses (Warner, Taylor, Powers, & Hyman, 1989), determined that insight into and acceptance of illness is necessary, but more is required for good outcome. The patient must feel a sense of control over the course of the illness. Acceptance of the label of mental illness alone, without any sense of being able to effect any positive changes, usually results in worse functioning (Warner et al., 1989). This study states that it is hard to find patients who will both accept their diagnosis of mental illness and still retain an internal locus of control. It suggests that family psychoeducation approaches and social skills training could have great value here in influencing locus of control.

The identification of certain psychological factors and their role in health outcomes has become a

subject of great interest. The importance of life stress and social support, as two such possible determinants, has come under scrutiny. Their association with health outcomes has not been proven to be very strong. To account for individual differences, individual coping style must be studied.

Funch and Marshall (1984) dealt with this in a study of 151 women with breast cancer. Among the sample population was a sub group of women who indicated that they held themselves responsible for their recovery. From this it would seem that these women would be internally oriented with respect to control over their health. These women appeared to be highly independent and self-reliant. Interestingly, for these women, more negative affect was related to having a large social network, possibly because of their greater reliance on self. Funch and Marshall (1984) found that self-reliance had no significant relationship to any of the support or adjustment variables.



A cautionary note should be made here regarding the possible negative impact of internality. Internal beliefs may not always be facilitative. Although alertness and attempts at mastery behavior are very appropriate in situations which are controllable, repeated efforts that do not bring about the desired change or control of the situation may actually exacerbate the problem. A realistic look at life situations along with the possible responses to these situations and the potential for the desired reinforcements would prove to be the wisest course (Strickland, 1978).

#### Summary

Studies involving the importance of internal locus of control on the rehabilitation process of any illness or disability, tend to have numerous methodological problems. The subject groups selected and the indexes of outcome, as well as the manipulation of treatment, structures, cause limited generalizability (Foon, 1987).

Different studies contradict each other probably too frequently for strictly scientific purposes. This becomes obvious when looking at the various studies involving weight reduction and locus of control. However, in light of the great body of knowledge indicating a more than coincidental relationship between locus of control and outcome, it would be unwise to disregard it (Foon, 1987).

Questionnaires exist that measure a person's internal locus of control, however, that extra inner essence of a person defies scientific exploration and measurement. The literature attests to the more than coincidental power that internally oriented people possess over their disabilities. And it seems that it is this power that can make the difference in a person's prognosis and quality of life.

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